

ABSTRACT OF THE DISCLOSURE

In the pixel portions of the CMOS image sensor, a plurality of unit cells are arranged in the row and column directions at a predetermined pitch respectively in a two-dimensional plain forming a matrix. Each unit cell includes the first and second photodiodes PDa and PDb, the first and second transfer transistors Ta and Tb for transferring the stored charges of the photodiodes to their common floating junctions FJ, the reset transistors R for resetting the potential of the floating junctions FJ, the driver transistors D whose output potential is controlled by the potential of the floating junctions FJ, and the address transistors A for selectively driving the driver transistors D.

The floating junction area FJ, the reset transistors R, the driver transistors D, and the address transistors A are commonly used for reading signal charges stored in the first and second photodiodes PDa and PDb.

With the arrangement of the elements and wires in the pixel portions, the integration can be increased and the resolution in the horizontal and vertical directions can be improved.